

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION IX

75 Hawthorne Street San Francisco, CA 94105

> Via U.S. Postal Service and Electronic Mail Certified Mail Receipt No. 7000 0520 0021 6107 8247

September 22, 2008

AIG Retirement Services, Inc.
In care of DST Realty Advisors
Douglas Tymis
Agent for AIG Retirement Services, Inc.
6730 North Scottsdale road
Suite 250
Scottsdale, Arizona 85253

Re:

July 22 and September 11, 2008 Amendments to PCB Remediation Notice Washington Park Corporate Center Lot 3, Trillium Residential, Phoenix, Arizona – Self Implementing PCB Cleanup Under 40 CFR 761.61(a)

Dear Mr. Tymis:

On November 2, 2007 the U.S. Environmental Protection Agency (USEPA) approved Western Technologies Inc. (WTI) "PCB Remediation Notice, Washington Park Corporate Center, Lot 3, 44th Street and Washington Street, Phoenix, Arizona," WT Job No. 2187JK184, October 12, 2007. The PCB cleanup at Lot 3 is being conducted under Section 761.61(a) (self-implementing PCB cleanup) of the Toxic Substances Control Act (TSCA) regulations. From November 2007 to May 2008, WTI conducted the PCB cleanup on Lot 3. The results of cleanup verification sampling triggered amendments to WTI's October 12, 2007 Notification.

In late July 2008 USEPA received WTI's July 22, 2008 "Amendment to PCB Remediation Notice Washington Park Corporate Center Lot 3, Trillium Residential 4400 Block of East Washington Street, Phoenix, Arizona," (First Notification Amendment). In response to preliminary comments from USEPA, WTI's September 11, 2008 letter clarified the First Notification Amendment and proposed contingencies to be implemented based on the results of the additional soil characterization proposed in this Amendment. Given its scope, USEPA is referring to WTI's September 2008 letter as the Second Notification Amendment.

USEPA is approving the First and Second Notification Amendments with the conditions described in the enclosure to this letter. This conditional approval is only for the TSCA PCB cleanup work described in the First and Second Notification Amendments. USEPA recommends that WTI seek approval from the Arizona Department of Environmental Quality (ADEQ) for the subsurface soil vapor work described in the First Notification Amendment as explained at the end of this letter.

Based on the Notification Amendments, WTI collected composite soil samples to verify achievement of the high occupancy cleanup level of less than or equal to 1 ppm PCBs in Lot 3. The results of cleanup verification samples confirmed that PCB-contaminated soils remain in three (T6-15, T7-15, and T8-15) of several cleanup verification sampling grids at 19 feet below

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ground surface (bgs). The remaining PCB concentration in soils at sampling grids T6-15, T7-15, and T8-15 is 1.2, 4.1, and 6.8 ppm respectively. According to WTI, except for these three sampling grids, the PCB cleanup level for high occupancy was achieved at the remaining grids. Grids T6-15, T7-15, and T8-15 are collectively referred to as the identified contaminated area in the First Notification Amendment and as the Trench Area in the Second Notification Amendment.

We understand that an upscale residential apartment complex is planned for development at Lot 3 of the Washington Corporate Center. Among other features, the residential complex will consist of 4-story residential apartment buildings, courtyard, and pool. A portion of the Trench Area will be located under one of the proposed apartment buildings. Lot 3 is about 6.05 acres and encompasses the 2.75-acre PCB remediated area which includes the Trench Area where PCBs remain above 1 ppm and less than 10 ppm PCBs.

In general, WTI proposes to (1) conduct additional soil characterization in the Trench Area and additional soil removal if PCBs are detected in soils above 1 ppm, (2) install a cap over the Trench Area if PCBs are detected in this area above 1 ppm after completing the soil cleanup (40 CFR 761.61(a)(4)(i)(A) and (a)(7)), and (3) record a notice on the deed to the property (40 CFR 761.61(a)(8)). If a cap is installed in the Trench Area, WTI proposes to also install a physical barrier below the cap and above the PCB-contaminated soils. The barrier is to enhance the cap's effectiveness and prevent disturbance of the soils in the Trench Area during site redevelopment activities.

WTI also proposes to characterize soil in four areas at Lot 3 planned for detention basins to determine if PCBs are present. WTI proposes to install a cap and barrier system at the detention basin areas similar to that at the Trench Area, if PCBs are detected above 1 ppm and remain above this concentration after cleanup.

It is our understanding also that AIG is interested in submitting a risk-based disposal application under 40 CFR 761.61(c) if the PCB concentration in soils is above 10 ppm after AIG has fully complied with the requirements at 40 CFR 761.61(a)(4)(i)(A) and (a)(6). USEPA encourages AIG to take advantage of the flexibility in this section of the regulations. We clarify beforehand, however, that whether 761.61(a) or 761.61(c) is used to manage PCB contamination at or below 10 ppm or above 10 ppm, respectively, a cap and deed notice would still be required. The risk-based application should include a risk based evaluation of the Trench Area and detention basin areas confirming whether potential exposure pathways exist and if they are complete. Although 40 CFR 761.61(c) does not specify a time frame for USEPA's approval of risk-based applications, we try to approve or deny these applications within 30 days after we receive them.

Finally, the First Notification Amendment indicates that volatile organic compounds (VOCs, e.g., tetrachloroethene at 59 ug/kg) and polynuclear aromatic compounds (PAHs, e.g., pyrene, anthracene) were detected in the Trench Area. Given this finding, WTI proposes to conduct a soil vapor assessment (including installation of soil vapor wells) in this area.

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USEPA recommends that WTI seek approval of the "Soil Vapor Screening" section in the First Notification Amendment from ADEQ. We believe the soil vapor screening work proposed the First Notification Amendment is not covered under TSCA and it is better managed under ADEQ's authorized RCRA corrective action program or cleanup voluntary program. USEPA recommends that WTI also seek ADEQ's approval of the sections in the First Notification Amendment titled "Proposed Additional Characterization," "Vertical Assessment at the Identified Contaminated Area," and "Detention Basin Characterizations" with respect to further soil characterization involving the co-contaminants identified in the Trench Area.

We appreciate your consultant (WTI) submitting the subject Notification Amendments and look forward to continue working with WTI on the Washington Corporate Center project. Please call Carmen Santos of my staff at 415.972.3360 with any questions regarding this conditional approval. Thank you.

Sincerely,

Arlene Kabei

Associate Director
Waste Management Division

Enclosure

Cc: David Regonini, Western Technologies, Inc. Andy Leverock, ADEQ Steve Armann, USEPA R9 Carmen Santos, USEPA R9 Annastacia Braye, USEPA R9

Enclosure

Washington Park Corporate Center Lot 3 WTI Amendments to October 12, 2007 PCB Remediation Notice Washington Park

USEPA Conditional Approval September 22, 2008

Washington Park Corporate Center Lot 3
Trillium Residential
4400 Block East Washington St.
Phoenix, Arizona

A. Background and Introduction

On November 2, 2007 the U.S. Environmental Protection Agency (USEPA) approved Western Technologies Inc. (WTI) "PCB Remediation Notice, Washington Park Corporate Center, Lot 3, 44th Street and Washington Street, Phoenix, Arizona," WT Job No. 2187JK184, October 12, 2007. The cleanup of soils contaminated with polychlorinated biphenyls (PCBs) on Lot 3 is being conducted under Section 761.61(a) (self implementing PCB cleanup) of the Toxic Substances Control Act (TSCA) regulations.

On July 24, 2008 USEPA received WTI's July 22, 2008 "Amendment to PCB Remediation Notice Washington Park Corporate Center Lot 3, Trillium Residential 4400 Block of East Washington Street, Phoenix, Arizona," (First Notification Amendment). On September 12, 2008 we received WTI's September 11, 2008 letter with clarifications and contingencies for the additional soil characterization work described in the First Notification Amendment. Because of its scope, USEPA refers to WTI's letter as the Second Notification Amendment. The September 11, 2008 letter refers to "the amendment," which is the First Notification Amendment.

USEPA is approving the First and Second Notification Amendments with the conditions described in Section B below. This approval is for Lot 3 of the Washington Corporate Center and it is effective on the date of USEPA's transmittal letter.

This approval does not relieve the owner of the property from complying with all other applicable federal, state, and local regulations and permits. Departure from the approval conditions without prior written permission from USEPA may result in the commencement of proceedings to revoke this approval and/or an enforcement action. This approval in no way provides a shield from an enforcement action by EPA, including the imposition of penalties, for violations of this approval or for violations of other applicable TSCA PCB requirements.

WTI has submitted the Notification Amendments on behalf of the current land owner AIG Retirement Services, Inc. (AIG). AIG is selling Lot 3 to another party. The PCB cleanup is being conducted as part of this real estate transaction. A residential development consisting of several residential apartment buildings among is planned for Lot 3.

Based on the First Amendment soil composite samples were collected by WTI to verify if the high occupancy TSCA PCB cleanup level equal to or less than 1 ppm was achieved in Lot 3. PCB contaminated soils remain in sampling grids T6-15, T7-15, and T8-15 (identified contaminated area or Trench Area) at 1.2, 4.1, and 6.8 ppm PCBs, respectively, at 19 feet below ground surface (bgs). The PCB cleanup level for high occupancy was not achieved in the Trench

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Area. A portion of this area falls within the footprint of one of the planned residential apartment buildings. According to the First Notification Amendment, a "slab on grade, monolithic post-tensioned concrete slab with a minimum thickness of 8 inches" is <u>proposed</u> for the apartment buildings.

For a high occupancy area, Sections 761.61(a)(4(i)(A), 761.61(a)(7), and 761.61(a)(8) of the TSCA regulations require a cap be installed and a deed notice be recorded if PCB contaminated soils are left in place at concentrations higher than 1 ppm and less than or equal to 10 ppm.

In general, WTI proposes to (1) conduct additional soil characterization in the Trench Area and additional soil removal if PCBs are detected in soils above 1 ppm, (2) install a cap over the Trench Area if PCBs are detected in this area above 1 ppm after completing the soil cleanup (40 CFR 761.61(a)(4)(i)(A) and (a)(7)), and (3) record a notice on the deed to the property (40 CFR 761.61(a)(8)). If a cap is installed in the Trench Area, WTI proposes to also install a physical barrier below the cap and above the PCB-contaminated soils. The barrier is to enhance the cap's effectiveness and prevent disturbance of the soils in the Trench Area during site redevelopment activities.

WTI also proposes to characterize soil in four areas at Lot 3 planned for detention basins to determine if PCBs are present. WTI proposes to install a cap and barrier system at the detention basin areas similar to that at the Trench Area, if PCBs are detected above 1 ppm and remain above this concentration after cleanup.

The physical barrier mentioned above and that WTI proposes to install in the Trench Area consists of a low-strength-concrete barrier at 40 feet bgs with a minimum thickness of 6 inches. In addition, WTI proposes to cover the west wall of the Trench Area with a metal mesh secured with anchors and faced with shockcrete at a certain depth and above the bottom of the trench. We suggest that physical barriers to be used in addition to the cap (as defined in the regulations) be of materials constructed via processes more energy efficient than those to make concrete.

The owner of Lot 3 needs to begin placing engineered fill on Lot 3 which will enable stable surfaces for a drill rig. Consequently, open excavations (including the Trench Area) within Lot 3 will be filled before the additional soil characterization work is conducted. WTI proposes to remove the fill from the Trench Area and planned detention basin areas if samples from the soil borings to be drilled show PCBs above 1 ppm. Soil removal work will be conducted and a cap / barrier system will not be installed if soil cleanup verification results show PCB levels equal to or less than 1 ppm. If PCBs are detected above 1 ppm and less than or equal to 10 ppm, a cap and barrier system will be installed as part of the self implementing cleanup (761.61(a)). If the PCB levels are found to be above 10 ppm after fully complying with 761.61(a)(4)(i)(A) and (a)(6), WTI proposes to submit a risk-based application for EPA approval.

B. Conditions of Approval – First (July 22, 2008) and Second (September 11, 2008) Notification Amendments

The following comments are conditions of approval and modify the First and Second Notification Amendments. Please implement the Notification Amendments as modified below.

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1. Sequence and Description of the Work, Step 1 - Second Notification Amendment: USEPA approves Step 1 (Placement of Fill on Lot 3) as modified by installation of a membrane (e.g., HDPE) in the Trench Area. The purpose of the membrane is to temporarily separate the new fill from the bottom surface of the Trench Area excavation until the additional characterization is completed. If this is not possible, please discuss potential impediments with USEPA.

USEPA leaves issues related to the adequacy (physical and chemical characteristics) of the material to be used as fill in Lot 3 to the discretion of the land owner and any state or local agency with jurisdiction on this specific matter. However, if the fill material is to be used to construct the soil cap for the Trench Area such material shall meet the requirements in 40 CFR 761.75(b)(1)(ii) through 761.75(b)(1)(v) and 264.310(a). In addition, the PCB concentration of the material to construct the cap shall be less than 1 ppm PCBs (761.61(a)(7)).

2. Survey Coordinates for Trench Area (i.e., Contaminated Area) and Four Planned Detention Basin Areas: The survey of the Trench Area (also referred to as the Identified Contaminated Area in the First Notification Amendment) has been conducted already as shown in the attached figure providing the survey coordinates for this area.

The Trench Area shall be re-surveyed after placing new fill to original grade in Lot 3 using the coordinates in the attached figure to locate this area before conducting the additional soil characterization at about 40 feet bgs. The planned detention basin areas shall be surveyed after placing the new fill on Lot 3 and before characterization of the soils in these areas for PCBs. After completion of cleanup activities, the remediated areas shall be resurveyed to include up to date survey coordinates in the deed notice. Please also refer to Item 8 below.

- 3. Additional Soil Characterization Work: The additional soil characterization sampling shall be based on collection of discreet samples that closely follows Subpart N requirements in order to benefit from the flexibility of collecting composite samples for cleanup verification under Subpart O.
- 4. Sequence and Description of the Work, Step 2 Second Notification Amendment: A total of nine (9) soil borings will be drilled in the Trench Area to conduct additional characterization in this area. Six (6) borings shall be drilled at the perimeter and three (3) borings shall be drilled through the center of each of the three grids comprising the Trench Area. The borings shall be drilled to 40 feet bgs at a minimum. Soil borings shall be drilled in the areas planned for detention basins in Lot 3. WTI and USEPA shall agree on the number of borings to be drilled in these areas. Please also refer to Item 3 above.
- 5. Sequence and Description of Work, Step and 3 and Contingency Actions for Trench Area and Planned Detention Basin Areas Second Notification Amendment: Please also refer to Item 1 above regarding the temporary use of a membrane to keep the new fill material separate from the PCB contaminated soils at the bottom of the Trench Area.

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The approved original Notification requires a PCB cleanup level for Lot 3 of less than or equal to 1 ppm PCBs (high occupancy). The following conditions apply if the land owner is unable to meet this cleanup level based on the results of cleanup verification samples.

USEPA approves of a high occupancy PCB cleanup level of greater than 1 ppm and less than or equal to 10 ppm PCBs for the Trench Area and planned detention basin areas if the following conditions are met to USEPA's satisfaction: (1) the land owner reasonably excavated PCB impacted soils to achieve the PCB cleanup level of less than or equal to 1 ppm PCBs; (2) the land owner demonstrates that it implemented actions to fully comply with 40 CFR 761.61(a)(6)(i), (a)(6)(ii)(A) and (a)(6)(ii)(B), (2); and (3) the land owner fully complies with the requirements at 761.61(a)(7), 761.75(b)(1)(ii) through 761.75(b)(1)(v), and 761.61(a)(8).

The concrete barriers described in the First Notification Amendment and referred to in the Second Notification Amendment as concrete caps do not meet the requirements for accessibility to conduct the cap maintenance under 40 CFR 761.61(a)(7).

- 6. Cleanup Levels for High Occupancy: Please refer to Item 5 above.
- 7. Cap for Trench Area (Grids T6-15, T7-15, and T8-15): The barrier concept that WTI proposes to implement at the Trench area (i.e., referred to previously as the identified contaminated area) is a great idea to enhance the effectiveness of a soil cap. However, the cap requirements at 40 CFR 761.61(a) still shall be fulfilled. The regulations at 761.61(a)(4)(i)(A) and 761.61(a)(7) allow the use of a compacted soil cap with a minimum thickness of 10 inches that meets the requirements of 40 CFR 264.310(a) (cap requirements for landfills) and 761.75(b)(1)(ii) through 761.75(b)(1)(v). Contaminated soils remaining in the Trench Area after cleanup of this area in accordance with the Notification and related Amendments shall be covered with a cap that meets the requirements in the above cited regulations.

USEPA understands that a portion of the Trench Area will not be covered by the concrete slab of one of the apartment buildings planned for construction in Lot 3 (scenario 1). Another portion of the same Trench Area will be located below one of the building's concrete slab (scenario 2). A cap (not what is proposed in the Second Notification Amendment as a cap) meeting the requirements of 761.61(a)(7) shall be installed over the entire Trench Area. If a compacted soil cap is chosen, the land owner needs to demonstrate the selected engineered fill meets the requirements of 761.61(b)(1)(ii) through (b)(1)(v) to confirm the compacted soil cap will also meet these requirements.

For scenario 1, this initial cap shall be the final cap. For scenario 2, the initial cap (i.e., that cap for scenario 1) is considered a temporary cap and the apartment building slab shall be the final cap for the portion of the Trench Area that will be located below the apartment building. The land owner shall confirm in writing with copies of relevant sections of the <u>final design</u> for the proposed apartment building that the building's concrete slab covering a certain portion of the Trench Area meet the cited regulatory requirements for a cap. The caps in scenarios 1 and 2 shall be maintained in the future as required in 40 CFR 264.310(a) and 761.61(a)(7). These regulations do not waive the cap

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maintenance requirements based on installation of a cap thicker than the minimum thickness specified in the TSCA regulations.

8. Deed Notice to be Recorded: For a high occupancy area, Sections 761.61(a)(4(i)(A), and 761.61(a)(8) of the TSCA regulations require a deed notice be recorded if PCB contaminated soils are left in place at concentrations higher than 1 ppm and less than or equal to 10 ppm PCBs.

In addition to what is already proposed in the First and Second Notification Amendments, the deed notice shall include the procedures and schedule to maintain any cap on Lot 3 (i.e., Trench Area and any that may be necessary in the detention areas). As to the amount of maintenance necessary for the cap(s), please refer to 40 CFR 264.310(a) which establish that a cap must function with minimum maintenance. A cap constructed in accordance with Section 761.61(a)(7) and combined with a physical barrier installed above the surface of remaining PCB contaminated soils (at Trench Area and, if necessary, at the detention basin areas) may meet the requirement of a cap that functions with "minimum maintenance" provided the requirements at 761.61(b)(1)(ii) through (b)(1)(v) are met.

The surveys for all locations at Lot 3 where a cap may be required (e.g., Trench Area, detention basin areas) shall be incorporated into the deed notice as part of the descriptions of locations within Lot 3 where PCB contaminated soils remain above the cleanup level of less than or equal to 1 ppm PCBs. The surveys to be included in the deed shall reflect the final remediated condition of the Trench Area and of any detention basin area (if PCB cleanup is necessary).

- 9. Additional Contingencies: Ground water may be encountered during drilling of soil borings and/or additional soil excavations. WTI may install wells if water is encountered to determine if PCBs have impacted ground water. This issue, however, would need to be addressed with ADEQ and other applicable state and local agencies.
- 10. Split Samples: USEPA reserves the right to obtain split or duplicate samples upon request.

